

Listing of Claims:

1. (Previously Presented) A reaction system for producing a polymer comprising:

a) a polyisocyanate composition selected from the group consisting of 4,4'-diphenylmethane diisocyanate ("MDI"), 2,4'-MDI, polymeric MDI, MDI variants, and mixtures thereof;

b) a polyether polyol and a cross-linking agent different from the polyether polyol;

c) an internal mold release composition, said internal mold release composition containing:

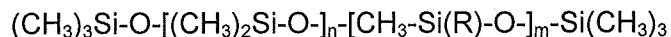
i) a fatty polyester, and

ii) a fatty acid which is different from the fatty polyester;

d) a poly(dimethylsiloxane)-polyoxyethylene surfactant; and optionally

e) optionally, a catalyst suitable for promoting a polymer-forming reaction between the polyisocyanate composition and the polyether polyol and the cross-linking agent;

wherein the polyisocyanate composition and the polyether polyol and the cross-linking agent are present in proportions suitable for the formation of the polymer, the poly(dimethylsiloxane)-polyoxyethylene surfactant is present in the reaction system in an amount such that the poly(dimethylsiloxane)-polyoxyethylene surfactant contributes more than 0.006 moles of EO per 100g of the polymer derived from the reaction system, and the poly(dimethylsiloxane)-polyoxyethylene surfactant has the following formula:



wherein,

$\text{R} = -(\text{CH}_2)_3-\text{O}-[\text{EO}]_x-\text{R}'$ ;

$\text{R}'$  is selected from the group consisting of H and  $\text{CH}_3$ ;

x is a number from greater than 1 up to 24;

m is a number from 1 to 25; and

n is a number from 0 to 100.

2. (Cancelled)

3. (Previously Presented) The reaction system of claim 1 wherein the fatty polyester comprises a reaction product of:

- (i) an aliphatic dicarboxylic acid;
- (ii) an aliphatic polyol; and
- (iii) a fatty monocarboxylic acid,

wherein the fatty monocarboxylic acid has from 12 to 30 carbon atoms.

4. (Original) The reaction system of claim 3 wherein the fatty polyester comprises a reaction product of adipic acid, pentaerythritol, and oleic acid.

5. (Original) The reaction system of claim 1 wherein the fatty acid is an aliphatic carboxylic acid having eight or more carbon atoms.

6. (Original) The reaction system of claim 1 wherein the fatty acid comprises at least one member selected from the group consisting of oleic acid and linoleic acid.

7. (Original) The reaction system of claim 1 wherein the catalyst comprises a tertiary amine catalyst.

8. (Cancelled)

9. (Previously Presented) The reaction system of claim 1 wherein x is 7, m is 11, and n is 47.

10. (Cancelled)

11. (Previously Presented) The reaction system of claim 1 wherein R' is H.

12-13. (Cancelled)

14. (Original) The reaction system of claim 13 wherein R' is H.

15. (Original) A fiber reinforced polymeric molding produced from the reaction system of claim 1.

16. (Original) A mat reinforced polymeric molding produced from the reaction system of claim 1.

17-19. (Cancelled)

20. (Previously Presented) The reaction system of claim 1 wherein the reaction system is free from a poly(dimethylsiloxane)-polyoxyethylene surfactant that is derived from alkylene oxides other than ethylene oxide.

21. (Previously Presented) The reaction system of claim 1, wherein the cross-linking agent is selected from the group consisting of glycerol, oxyalkylated glycerol, pentaerythritol, sucrose, trimethylolpropane, sorbitol, oxypropylated sucrose, and oxyalkylated polyamines.

22. (Currently Amended) A reaction system for producing a polymer comprising:

a) a polyisocyanate composition selected from the group consisting of 4,4'-diphenylmethane diisocyanate ("MDI"), 2,4'-MDI, polymeric MDI, MDI variants, and mixtures thereof;

b) a polyether polyol and a cross-linking agent different from the polyether polyol;

c) an internal mold release composition, said internal mold release composition containing:

i) a fatty polyester, and

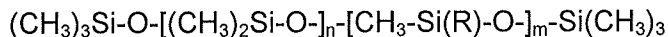
ii) a fatty acid which is different from the fatty polyester;

d) a surfactant, which is different from components c(i) and c(ii), and wherein the surfactant consists of [[a]] poly(dimethylsiloxane)-polyoxyethylene surfactant; and optionally

e) a catalyst suitable for promoting a polymer-forming reaction between the polyisocyanate composition and the polyether polyol and the cross-linking agent;

wherein the polyisocyanate composition and the polyether polyol and the cross-linking agent are present in proportions suitable for the formation of the polymer, the poly(dimethylsiloxane)-polyoxyethylene surfactant is present in the reaction system in an amount such that the poly(dimethylsiloxane)-polyoxyethylene surfactant contributes

more than 0.006 moles of EO per 100g of the polymer derived from the reaction system, and the poly(dimethylsiloxane)-polyoxyethylene surfactant has the following formula:



wherein,

R=  $-(\text{CH}_2)_3-\text{O}-[\text{EO}]_x-\text{R}'$ ;

R' is selected from the group consisting of H and  $\text{CH}_3$ ;

x is a number from greater than 1 up to 24;

m is a number from 1 to 25; and

n is a number from 0 to 100.

23 (New) The reaction system of claim 1 wherein the reaction system is free from a poly(dimethylsiloxane)-polyoxyethylene surfactant that also contains polyoxypropylene.

24. (New) A reaction system for producing a polymer comprising:

a) a polyisocyanate composition selected from the group consisting of 4,4'-diphenylmethane diisocyanate ("MDI"), 2,4'-MDI, polymeric MDI, MDI variants, and mixtures thereof;

b) a polyether polyol and a cross-linking agent different from the polyether polyol;

c) an internal mold release composition, said internal mold release composition consisting of:

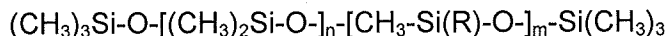
i) a fatty polyester, and

ii) a fatty acid which is different from the fatty polyester;

d) a surfactant, which is different from components c(i) and c(ii), and wherein the surfactant consists of poly(dimethylsiloxane)-polyoxyethylene; and optionally

e) a catalyst suitable for promoting a polymer-forming reaction between the polyisocyanate composition and the polyether polyol and the cross-linking agent;

wherein the polyisocyanate composition and the polyether polyol and the cross-linking agent are present in proportions suitable for the formation of the polymer, the poly(dimethylsiloxane)-polyoxyethylene surfactant is present in the reaction system in an amount such that the poly(dimethylsiloxane)-polyoxyethylene surfactant contributes more than 0.006 moles of EO per 100g of the polymer derived from the reaction system, and the poly(dimethylsiloxane)-polyoxyethylene surfactant has the following formula:



wherein,

$R = -(\text{CH}_2)_3-\text{O}-[\text{EO}]_x-\text{R}'$ ;

R' is selected from the group consisting of H and CH<sub>3</sub>;

x is a number from greater than 1 up to 24;

m is a number from 1 to 25; and

n is a number from 0 to 100.

25. (New) A reaction system for producing a polymer consisting of:

a) a polyisocyanate composition selected from the group consisting of 4,4'-diphenylmethane diisocyanate ("MDI"), 2,4'-MDI, polymeric MDI, MDI variants, and mixtures thereof;

b) a polyether polyol and a cross-linking agent different from the polyether polyol;

c) an internal mold release composition, said internal mold release composition consisting of:

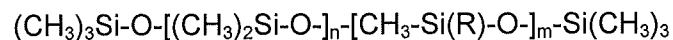
i) a fatty polyester, and

ii) a fatty acid which is different from the fatty polyester;

d) a poly(dimethylsiloxane)-polyoxyethylene surfactant; and

e) optionally, a catalyst suitable for promoting a polymer-forming reaction between the polyisocyanate composition and the polyether polyol and the cross-linking agent;

wherein the polyisocyanate composition and the polyether polyol and the cross-linking agent are present in proportions suitable for the formation of the polymer, the poly(dimethylsiloxane)-polyoxyethylene surfactant is present in the reaction system in an amount such that the poly(dimethylsiloxane)-polyoxyethylene surfactant contributes more than 0.006 moles of EO per 100g of the polymer derived from the reaction system, and the poly(dimethylsiloxane)-polyoxyethylene surfactant has the following formula:



wherein,

$R = -(\text{CH}_2)_3-\text{O}-[\text{EO}]_x-\text{R}'$ ;

R' is selected from the group consisting of H and CH<sub>3</sub>;

x is a number from greater than 1 up to 24;

m is a number from 1 to 25; and

n is a number from 0 to 100.